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ABSTRACT

The Nuclear Information Centre (CIN), a department of the Brazilian National Nuclear Energy Commission (CNEN), provides information services in a wide scope of scientific and technical subjects, to both CNEN employees and other institutions in Brazil and other Latin American countries. CIN has three divisions: documentation, promotion, and technology. This paper describes the experience of the continuous development climate aimed at achieving excellence for users of the Promotion Division. The improvement program focuses on critical appraisal of the organization, evaluation of procedures, and attention to personnel morale, education, and training, including communication and team empowerment. People management and human development were ranked at a higher importance level than any other aspect of administration. Four main indicators were chosen to measure performance: number of new users, rate of usage by present users, billings, and number of complaints per year. The main features of the quality program are: building a customer driven division; utilizing the skills developed by those who work directly with users; performing an experiment within the limits of the Promotion Division, without support of the entire institution; implementing a program directed toward the user rather than production; and trying to construct a tailor-made model, using basic principles of quality but avoiding a single traditional or ready-made model. (SWC)

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Building a Climate of Continuous Improvement

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Building a Climate of Continuous Improvement

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Abstract

This paper describes an experience of continuous development climate aiming at excellence towards the users of the Promotion Division of CIN/CNEN - Brazil. The program established in 1993 has three focuses: critical appraisal of the organisation, evaluation of the procedures, and attention to personnel morale, education and training. It ranked people management and human development at a higher importance level than any other aspects of the administration. Some results are also reported.

1. Introduction

1.1 THE NUCLEAR INFORMATION CENTRE

The Nuclear Information Centre - CIN, a department of the Brazilian National Nuclear Energy Commission - CNEN, started operations in 1970.

CIN plays an outstanding role in the Brazilian Information scene. It is the Brazilian representative of INIS and ETDE; it has been involved in many Latin American co-operative systems and participates in the main national programs, such as a country-wide document delivery system - COMUT. The know-how it acquired in developing and managing information systems is well recognised and all this technology is transferred to other Brazilian and foreign organisations in many ways, such as technical visits and on-the-job training, participation and organisation of courses and seminars, technical assistance in the country and abroad, and software transfer.

CIN has three Divisions:

- Documentation Division - DIDOC, in charge of services, including SDI, document delivery, the maintenance of union-catalogues and the library.
- Promotion Division - DIPRO, in charge of an active marketing program, besides giving assistance on the use of services and more recently on how to reach them through the nets.
- Technology Division - DITEI, in charge of retrospective searches, databases construction and the development of new products and systems.

CIN offers services in a wide scope of scientific and technical subjects. Regular users are around 1,000, although some 3,000 prospects are registered in the users archive. They are mainly engineers, biologists, chemists, physicians and physicists and come from universities, industries, research centres, hospitals and governmental bodies related to science and technology. Around 40% of users are CNEN employees, while the remaining 60% belong to other institutions spread all over Brazil and other Latin American countries.

1.1 THE PROMOTION DIVISION

The team of DIPRO consists of four librarians, including the Head of the Division, one engineer, one systems analyst - all of them with MD or post-graduate courses, one business administrator, one designer and two clerical employees.

Almost all of the users are at remote places and this condition affects not only how personnel are organised but also their interface with the users. Some of the indirect impacts over DIPRO are the need to maintain a complex 'qualified' users database and an effective help-desk by telephone and e-mail, as well as the need to acquire know-how for the development of manuals, guides and promotional material.

The main reason to start a quality program is meeting users' demand. Acting as the interface between users and the internal staff, DIPRO felt directly the demand for better services. At a moment of management renewal, in 1993, all the conditions were in place to raise the question of quality improvement at the Division since there was pressure from outside and internal disorder caused by administrative problems coming from previous periods. This general inadequacy of work organisation caused a widespread uneasy feeling in the team. A marked fall in the number of incoming users, a decrease in the rate of usage of services and the number of complaints also indicated that something should be done to improve the performance and obtain reliability.

Since the authors have had long discussions about the feasibility of implementing quality programs in a public institution, it seemed also the right opportu-

nity to put theory into practice. The team decided to overcome all difficulties, that will be discussed later, and to carry forward an improvement program within its own limits, leaving it clear that maybe it would even be impossible to have the support of all in the Division.

2. A Quality Program for the Promotion Division

2.1 OBJECTIVE

The Promotion Division of CIN has been engaged since 1993 in this experience of continuous development climate aiming at excellence towards users.

The program had three central points: critical appraisal of the organisation, evaluation of the procedures, and attention to personnel morale, education and training. It ranked people management and human development at a higher importance level than any other aspects of the administration. That implied the adoption of a set of actions and conduct intending to remove fears and barriers, and to generate self-regard, satisfaction and self-confidence.

Taking into account user satisfaction, four main indicators were chosen to measure the future results: number of new users, rate of usage by the present users, billings and number of complaints over a year.

The main features of the program are:

- building a customer driven Division
- making the best of the very special sensibility developed by those who work directly with users, in answering their demands
- performing an experiment within the limits of the Division, even when not all of the institution were involved from the top down
- a program directed towards the user instead of towards the production
- trying to construct a tailor-made model, using the basic principles of quality but avoiding one single traditional model or ready imported models.

2.2 CRITICAL APPRAISAL OF THE ORGANISATION - THE ENVIRONMENT

Various external and internal factors affect the quality conditions at work in the Brazilian public services as a whole, and become a real challenge to management. We do not intend to construct an exhaustive panel, but just point out some of these factors to show their nature and how they influence the way administration is conducted.

2.2.1 The national factors

Unstable conditions of varied origin are routine for managers in Brazilian public institutions. The Brazilian unstable economic situation, for instance, has had lasting effects on governmental agencies such as CNEN. Planning, specially Financial Planning, is a very complicated and sophisticated operation, for all management levels.

Political changes also exert great influence on Brazilian institutional life, bringing discontinuity. Every four years, at the beginning of a new presidential period, management staff may be changed from the top down to the lowest levels. Therefore, it may happen that fluctuations, sometimes gaps or, even worse, paralyses in the programs occur, at not very long intervals.

Uncertainty related to personnel is a recent event. A huge number of employees retired for fear of losing rights. Beginning in the late Eighties, government has had the shrinking of public services as a main point in its programs. First, in 1989, all officials with no stability in the job were fired. It must be explained that some time before, with the 1988 new Constitution, some of the governmental employees obtained permanent positions, which is now considered by many a major source of loss of interest in the work. Second, salaries were kept low in a high inflation economy and as a result of this orientation, some people simply left for better salaries. The institutions suffered the consequences of rapid drainage of experienced people and of many vacant functions, since, as it was later proved, the Brazilian civil servants were not as numerous as they were claimed to be.

All those factors continuously affect the climate of work at governmental agencies. There are still others, such as the lack of a nationwide human resources policy for the public sector and specifically the absence of professional management.

These negative points are counterbalanced by the Brazilian people's characteristic enthusiasm and inventiveness, which to some extent produce islands of excellence in many public sectors.

2.2.2 The internal factors

In the late Seventies CNEN attracted many young professionals with high salaries and the possibility of promising jobs. High investments have been made towards personnel qualification: postgraduate and specialisation courses in the country and abroad, foreign language training, in-house specific courses and so on.

This generation was greatly involved in the rebuilding of democracy in the country, which led to

the desire to participate, that to a certain extent is carried over to other spheres outside politics. At work this drive is translated into the expectation of involvement in decision-making. Of course, management is influenced by such behaviour, since managers cannot impose conditions and need to find ways of effective leadership.

Managers have nevertheless to face a contradictory feeling of unconcern that prevails among the officials towards their daily tasks, due to the inadequate nature of some of their tasks. As a result of the situation discussed in the external environment, such as the lack of a hiring policy, there has been no renewal at CNEN for years. Consequently, since there are no juniors among technical personnel, some officials are simply assigned tasks beneath their ability. On the other hand, sometimes they must exceed themselves to replace more experienced people who retired or simply left. In addition, the shortage of clerks burdens the technical staff with clerical tasks.

CIN's premises are also a source of problems. The original project, designed before 1977, didn't foresee the increase in electronic equipment now in use. Therefore, people dispute space with microcomputers and printers. There is also a high level of noise coming from equipment and, since the individual space is not broad and the wooden workwalls are low, voices make concentration very difficult.

As the main positive factor, we could point out that CIN's staff has extensive and solid experience and specialisation. Another positive factor is that the Centre is well equipped with hardware and software.

2.2.3 Preceding conditions

Quality programs were not new for the group. CNEN as a whole had passed through two previous attempts to implement Total Quality Management programs. This imported model failed due to cultural differences and poor strategy. It is important to emphasise here that no matter what the main cause for its discontinuance, it is certain that it generated a clear opposition towards its rigid rules and that frustration would prevent future support from the employees in the implementation of formal programs.

There was even a sarcastic atmosphere regarding quality programs led by expensive consulting firms, which, in spite of that, spent enormous efforts with endless top management training but were unable to solve the elementary problems anyone could see without applying surveys and forms.

Nevertheless, the value of continuous improvement was recognised by the group. The employment

of methods and techniques like the Edward Deming's cycle (plan, do, check, act) were really feasible for the development of products and services aiming at simple and practical solutions to problems that were simple but not of least importance. That means that we might implement concepts about changes, but doing first things first.

2.3 PROMOTING BEHAVIOUR CHANGES, KEEPING OBJECTIVES

Since there was a pervasive feeling that many obvious changes had to be made before a rather sophisticated program was implemented, it was clear that measures should be taken to eliminate the hindering problems that could be easily identified by anyone.

It has been pointed out earlier that an unpleasant anticipation of discontinuity is very common among the employees when management changes. To prevent that, all the tasks and previous projects continued to be done the same way, until their destination could be decided by the group.

Brainstorming sessions were used to identify and to rank the problems. They were divided into two groups: the ones that could be solved internally were organised along the time-schedule, waiting for their turn. The ones that depended on an external solution were channelled to the proper level, always demanding an answer within fixed spans.

Of course, the officials were reasonable: they didn't expect everything to be cleared up in a second, but they wanted to be sure that there was some concern about solving problems. To prevent the natural impatience, a 'gaúcho' saying was very much used at that time. When someone in the group wanted to have everything solved within the shortest time we used to repeat, 'Let's start eating the hot porridge by the brim'.

Careful planning has been done, having in mind the program objectives: increase of services use and special attention to users. Of course, the careful promotion program, the maintenance of the help-desk, the marketing database and a complete revision of manuals and guides were the first priority, since those points had been identified as having great impact on users' perception of our services. The projects were sub-divided according to the main subjects, but inversions for each month and each responsible person were also obtained by the use of a management software.

Care was taken to ensure rhythm to the work, so that the workload could be well distributed among the components and along the year.

Planning has been done in an interactive manner, as was usual in CIN. Each person in the group was

invited to present suggestions - goals, revisions, whatsoever. A first plan was drawn up and new discussion sessions have taken place, to adjust volume of work, schedules and priorities. At last we had a program for the Division and well established personal programs to which all had a commitment. This way of acting has been repeated every year. The period from December to February, when the promotion projects slow down, is dedicated to general revision and a detailed work plan for the following period. Follow-up mechanisms were created, but it is always stressed that they are tools to give consistency to a collective work, not to watch individuals.

The first important change came after six months, when a reorganisation of functions took place. At that time, a thorough re-allocation was effected, according to individual potentialities and skills, such as presenting ideas in public, writing, organising and so on. A concentration of tasks according to individual abilities was effected and then this distribution was adopted on a trial basis. Later on, a comparison between the functions of an advertising agency and those of DIPRO helped to improve the assignments.

Another concern was the logical work flux and the distribution of responsibilities among the Divisions, to avoid re-work and failures. Just as an example, it was very common that some small but important duties remained unattended. Those were the cases when 'anyone' could do something. In the end, since nobody felt responsible for the task, it was not done and we had frequent failures, as a result of the omission of these minor tasks.

Special attention was given to users' reception. In a first example, the designer built a plan for the complete rearrangement of the premises, so that the Division could have a special and friendly place to receive the users. Attention to phone-calls was also regarded as highly important. How to answer, what to say, which documents should be near the phone and many other aspects were taken into consideration. Some small changes, with great results, were also introduced. For instance, notes are taken of all telephone calls. The records that at first were filed by date, began to be filed by name and left near the telephone. In a third round of discussion, it was decided to file all the received and replied correspondence together - phone-call notes, letters, fax, e-mail - to build a complete picture of all the users' contacts when they called again. The mail 'package' is complemented by the data recorded in the main electronic file and is bringing speed and completeness to the attention given to users.

2.4 COMMUNICATION AND TEAM EMPOWERMENT

That aspect of our program created the psychological conditions for the emergence and consolidation of a continuous improvement impulse in the group.

Efficient channels for receiving criticisms and absorbing new ideas were created. The first rule was to listen. Listen with the mind. Consider everything that is said, not only by words but also by attitudes and ideas behind the words. The head of the division set an example so it rapidly spread and contaminated the group. Of course, communication flows up and down freely. There is no barrier for information to come from top management downwards and all ideas and complaints come from the bottom upwards, as much as practicable. Everybody has the freedom to say anything, being sure that his ideas will not be considered silly or useless, or that a criticism will cause anger or revenge. Being open to others' remarks is valid also when the case is to listen to colleagues from other branches and to users.

Team-work is emphasised in many ways. No-one has the sole possession of his share in the work. Information should be passed on as intensively as the others can afford to receive it. No secrets to reaffirm a pretended personal importance are allowed. On the other hand, the authorship of any idea is recognised by all. It makes someone proud to hear that a certain idea came from him, so he may trust no-one will take it away and, on the contrary, it will be spread wider. Further, in team-work, ideas are added easily, without any interference sensation, for one person's idea immediately becomes the group's idea.

To make the group work together smoothly, we had to avoid isolated 'clans', or 'court', or 'favourites'. Nobody has first-hand information on purpose. All are subject to the same rules.

Special attention is given to ensure coherence between discourse and practice. The behaviour adopted must be consistent with the policy lines drawn. This is particularly true of the head of the Division, who is frequently required to redefine her actions upon hearing about someone else's complaints.

3. Conclusions

Unlike many authors predict, the effort of a small cell seems appropriate even when the institution from top down is not engaged.

We are just beginning, but good results have already been obtained in those two years: better planning, programs and communication; schedules

followed regularly resulted in better promotion and user interface, which in turn influenced the measured results of other Divisions, as the increase of billings, new users, volume of usage by actual users and fall in users' complaints. The studies conducted on the users' 'mail package' resulted in new surveys and services improvement.

Some other results are not so easy to evaluate, such as good performance and work flow and a clear understanding that work can bring a dynamic and pleasant environment. But their significance can be realised on a day-by-day basis. So, the results obtained by the Quality Program of DIPRO show the way to achieve a pro-active environment to develop and conduct work towards excellence.

Nobody in DIPRO will ever try to prevent changes by saying that something has always been done that way. Not any more, because transition is part of our lives. We want it, we want things to run better, to appear better. We know that our results depend on others. So, our policy is that of gently persuading many people from other Divisions, hoping that maybe in the future they will also be engaged.

Note

Gilda Queiroz is the head of the Promotion Division/CIN and Natanael Bruno is engineer at the Waste Management Division/ Licensing and Control Department - CNEN. He has a particular interest in improvement programs and has taken part in the Internal committees for a wide quality control project at CNEN. They worked together during the introduction of the program at CIN and he has given theoretical support to the project. They have written this paper, but the real authors are their colleagues from DIPRO.

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Appendix 1

Acronyms

- CIN - Centro de Informações Nucleares
CNEN - Comissão Nacional de Energia Nuclear
COMUT - Programa de Comutação Bibliográfica
DIPRO - Divisão de Promoção
ETDE - Energy Technology Data Exchange
INIS - International Nuclear Information Systems



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